

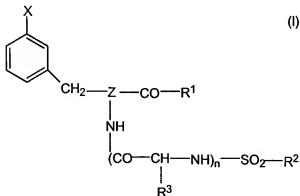
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-27 (Cancelled)

28. (Currently Amended) A pharmaceutical liposomal formulation, wherein the formulation comprises a liposome and an active pharmaceutical ingredient wherein the active pharmaceutical ingredient comprises a ~~3-guanidino~~ phenylalanine derivative of general formula I which is effective as a urokinase inhibitor ~~or consists essentially of a 3-amidino-phenylalanine derivative of general formula I which is effective as a urokinase inhibitor~~, having the property that, when administered to a patient, said formulation exhibits a reduction of at least one unwanted side effects effect selected from the group consisting of hemolysis and skin irritation,

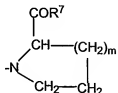


wherein

X is an amidino or guanidino group,

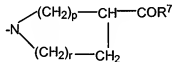
- R1 (a) is OH or OR⁴, wherein R⁴ is a branched or unbranched C₁-C₈-alkyl, C₃-C₈-cycloalkyl or aralkyl, wherein the alkyl, cycloalkyl or aralkyl is unsubstituted or substituted by hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen;
- (b) is a group of the formula NR⁵R⁶ in which R⁵ and R⁶ are any radicals compatible with the overall structure, wherein
- (i) R⁵ and R⁶ are H,
 - (ii) R⁵ is H, and R⁶ is a branched or unbranched C₁-C₈-alkyl, C₃-C₈-cycloalkyl or aralkyl, wherein the alkyl, cycloalkyl or aralkyl is unsubstituted or substituted by hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen;
 - (iii) R⁵ and R⁶ are each independently unbranched or branched C₁-C₄ optionally substituted by alkyl hydroxyl or/and halogen,
 - (iv) R⁵ is H, and R⁶ is -NH₂ or an aryl- or heteroaryl- substituted amino group, or
 - (v) R⁵ is H or an unbranched or branched C₁-C₄ alkyl optionally substituted by hydroxyl or/and halogen, and R⁶ is the residue of an amino acid of an α -, β or ω -amino carboxylic acid, amino sulfonic acid, a peptide having a length of up to 50 amino acids, or of a polypeptide having a length of more than 50 amino acids and up to 1000 amino acids,

(c) is a group of the formula



in which m is 1 or 2, and in which at least one of the methylene groups are optionally substituted by a hydroxyl, carboxyl, C₁-C₄-alkyl or a benzyl or phenylethyl radical, where the group defined in section (c) is racemic or has the D or L configuration, and R⁷ has the meaning of R¹ in sections (a), (b) and (f),

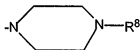
(d) is a group of the formula



in which p = r = 1, p = 1 and r = 2 or p = 2 and r = 1, and in which at least one of the methylene groups are optionally substituted by a hydroxyl, carboxyl, C₁-C₄-alkyl or a benzyl or phenylethyl radical, and R⁷ has the meaning of R¹ in section (a), (b) and (f),

- (e) is a piperidyl group which is optionally substituted in one of positions 2, 3 and 4 by a C₁-C₄-alkyl, C₁-C₃-alkoxy or hydroxyl radical, and wherein a further aromatic or cycloaliphatic ring is optionally fused onto the heterocycloaliphatic rings defined in section (c), (d) and (e) in the 2,3 or 3,4 position relative to the heteroatom,

- (f) is a group of the formula



in which R⁸ is

- (i) a C₁-C₆-alkyl radical or aryl radical, which radicals are unsubstituted or substituted by C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen,
- (ii) a saturated or unsaturated, branched or unbranched C₁-C₆-alkoxy radical or
- (iii) a phenoxy- or benzyloxycarbonyl radical optionally substituted by C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen,
- (g) is an acyl radical of the formula -COX, wherein X is

- (i) H or an unbranched or branched alkyl radical optionally substituted by hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen,
 - (ii) an aryl or heteroaryl radical optionally substituted by C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen, or
 - (iii) a C₃-C₁₀-cycloalkyl radical optionally substituted by hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen,
- (h) is a benzyl or phenylethyl radical, in which the aromatic radical is optionally substituted by a halogen, C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxy, cyano, carboxyl, sulfonyl or nitro group,
- (i) is a carboxamide residue of the formula -CONR'R", a thiocarboxamide residue -CSNR'R" or an acetamide residue -CH₂-CONR'R", wherein
- (i) R' and R" are H,
 - (ii) R' and R" are each independently C₁-C₄-alkyl,
 - (iii) R' is H and R" is C₁-C₄-alkyl,
 - (iv) R' is H and R" is aryl, or
 - (v) R' and R" form with the nitrogen atom a heterocycloaliphatic ring having 5-7 ring members, which may include a further N, O or/and S heteroatom,
- (j) is an SO₂-Y radical in which Y is

- (i) C₁-C₈-alkyl optionally substituted by hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen,
 - (ii) aryl or heteroaryl optionally substituted by C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen, or
 - (iii) -NR'R", where R' and R" are each independently H or C₁-C₃-alkyl,
- (k) is a cycloaliphatic ring having 5 to 8 C atoms, which is optionally substituted by a C₁-C₆-alkyl, C₁-C₃-alkoxy, halogen, hydroxyl or/and oxo group,
- (l) is a heteroaryl radical optionally substituted by C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen, or
- (m) is a functionalized alkyl radical of the formula -(CH₂)_n-X, where the alkyl chain is unbranched or branched, n is 1 to 8, and the functional radical X
- (i) is a hydroxyl group whose H atom is optionally replaced by a C₁-C₄-alkyl, aralkyl, aryl, C₁-C₄-hydroxyalkyl or acyl group CO-alkyl,
 - (ii) is a halogen atom,
 - (iii) is a tertiary amino group of the formula -N(Alk)₂, where the alkyl groups have 1 to 3 C atoms and preferably the same meaning, and the nitrogen atom optionally belongs to a heterocycloaliphatic ring having 5-7 ring members, which may include a further N, O or/and S heteroatom,

R² is a phenyl radical optionally substituted by C₁-C₆-alkyl, C₁-C₃-alkoxy, hydroxyl, carboxyl, sulfonyl, nitro, cyano, oxo or/and halogen,

R³ is H or branched or unbranched C₁-C₄-alkyl, and n is 0 or 1,

Z is N or CR⁹, where R⁹ is H or branched or unbranched C₁-C₄-alkyl, and

wherein the active ingredient is present in a proportion by weight of ~~0.5-100~~ 0.5-10% based on the total weight of the formulation and wherein the active pharmaceutical ingredient of general formula I is encapsulated within the a phospholipidic liposome.

29. (Previously presented) The formulation as claimed in claim 28, characterized in that the urokinase inhibitor is Na-(2,4,6-triisopropylphenyl sulfonyl)-3-amidino-(D,L)-phenylalanine-4-ethoxy carbonylpiperazide, the L enantiomer thereof or a pharmaceutically suitable salt thereof.

30. (Previously presented) The formulation as claimed in claim 28, characterized in that the urokinase inhibitor is Na-(2,4,6-triisopropylphenyl sulfonyl)-3-guanidino-(D,L)-phenylalanine-4 ethoxycarbonylpiperazide, the L enantiomer thereof or a pharmaceutically suitable salt thereof.

31. (Currently Amended) The formulation as claimed in claim 28, characterized in that the active ingredient is present in a proportion by weight of ~~2-50~~ 2-5%.

32. (Previously Presented) The formulation as claimed in claim 28, characterized in that it has a pH in the range 5.5-9.0.

33. (Currently Amended) The formulation as claimed in claim 28, characterized in that it comprises phospholipids in a proportion by weight of ~~4.5-400~~ 4.5-40% based on the total weight of the formulation.

34. (Currently Amended) The formulation as claimed in claim 28, ~~characterized in that it comprises phospholipids~~ wherein the phospholipid is selected from neutral phospholipids, anionic phospholipids ~~and or~~ combinations thereof.

35. (Currently Amended) The formulation as claimed in claim 28, ~~characterized in that it comprises~~ wherein the phospholipid is at least one anionic phospholipids phospholipid which is a phosphatidylethanolamine, phosphatidylglycerol, diphosphatidylglycerol, phosphoinositol and an esterified derivative thereof.

36. (Currently Amended) The formulation as claimed in claim 34, ~~characterized in that it~~ wherein the phospholipidic liposome comprises phosphatidylcholine and dimyristoylphosphatidyl glycerol in a ratio of 70:30 by weight, wherein said active pharmaceutical ingredient is encapsulated within the phospholipidic liposome in a pharmaceutically effective amount.

37. (Previously Presented) The formulation as claimed in claim 28, characterized in that it additionally comprises a membrane-stabilizing component in a proportion by weight of up to 5% based on the total weight of the formulation.

38. (Previously Presented) The formulation as claimed in claim 28 characterized in that it additionally comprises a cryoprotectant.

39. (Currently Amended) The formulation as claimed in claim 38, characterized in that the cryoprotectant is present in a proportion by weight of up to ~~450~~ 15%, preferably ~~5-150~~ 5-15%, based on the total weight of the formulation.

40. (Previously Presented) The formulation as claimed in claim 38, characterized in that the cryoprotectant is a carbohydrate or/and sugar alcohol.

41. (Previously Presented) The formulation as claimed in claim 28, characterized in that the average diameter of liposomes is not greater than 500 nm.

42. (Previously Presented) The formulation as claimed in claim 41, characterized in that the average diameter of liposomes is 100-200 nm.

43. (Previously Presented) The formulation as claimed in claim 28, characterized in that the liposomes are unilamellar liposomes.

44. (Previously Presented) The formulation as claimed in claim 28, in a form suitable for parenteral administration.

45. (Previously Presented) The formulation as claimed in claim 44 in a form suitable for intravenous injection.

46. (Previously Presented) The formulation as claimed in claim 44 in a form suitable for infusion.

47. (Previously Presented) The formulation as claimed in claim 44 in a form suitable for subcutaneous injection.

48. (Previously Presented) The formulation as claimed in claim 44 in a form suitable for intramuscular injection.

49. (Previously Presented) The formulation as claimed in claim 28 in dehydrated form.

50. Cancelled

51. Cancelled

52. Cancelled

53. (Previously Presented) A formulation as claimed in claim 28 wherein the formulation further comprises at least one cytostatic agent.

54. (Previously Presented) A method of treating urokinase-associated disorders comprising administering a therapeutically effective amount of the pharmaceutical formulation of claim 28 to a subject in need of such treatment.

55. (Previously Presented) A method of treating urokinase-associated tumors comprising administering a therapeutically effective amount of the pharmaceutical formulation of claim 28 to a subject in need of such treatment.

56. (Previously Presented) A method of treating breast carcinomas, pancreatic carcinomas and/or metastases formation comprising administering a therapeutically effective amount of the pharmaceutical formulation of claim 28 to a subject in need of such treatment.

57. (Canceled)

58. (New) A method of reducing the unwanted side effects of administering a urokinase inhibitor comprising administering a liposomal formulation comprising a therapeutically effective amount of an active pharmaceutical ingredient wherein said active pharmaceutical ingredient is selected from the group consisting of Na-(2,4,6-

triisopropylphenyl sulfonyl)-3-amidino-(D,L)-phenylalanine-4-ethoxy carbonylpiperazide, Na-(2,4,6-triisopropylphenyl sulfonyl)-3-guanidino-(D,L)-phenylalanine-4 ethoxycarbonylpiperazide, the L enantiomer thereof, a pharmaceutically suitable salt thereof, or a combination thereof, the method comprising encapsulating said active pharmaceutical ingredient within a phospholipidic liposome comprising phosphatidylcholine and dimyristoylphosphatidyl glycerol in a ratio of about 70:30 by weight.